AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application. Please amend the claims, as follows:

1-40. (Canceled)

41. (Currently Amended) A method of determining the location of a mobile terminal in a given area, the method comprising the steps of:

including said mobile terminal both in a satellite-based positioning system and in a cellular communications system, whereby said mobile terminal is adapted to receive satellite signals from said satellite-based system and to be covered by at least one cell of said cellular communications system; and

determining at least approximately the coordinates of said mobile terminal based on both satellite signals received from said satellite-based system and information related to said cellular communications system, wherein said coordinates include an altitude coordinate; and

deriving an estimate of said altitude coordinate ~~derived~~ from ~~said~~ information related to an altitude of one or more network elements in said cellular communications system.

42. (Canceled)

43. (Previously Presented) The method of claim 41, comprising the steps of:

identifying, in said cellular communications system, at least one base station proximate to said mobile terminal, said proximate base station having an associated altitude coordinate; and

using the altitude coordinate of said proximate base station as said estimate of said altitude coordinate.

44. (Previously Presented) The method of claim 41, comprising the steps of:

identifying, in said cellular communications system, a plurality of base stations adjacent to said mobile terminal, each said adjacent base station having a respective altitude coordinate;

determining the minimum of said altitude coordinates for said adjacent base stations; and

using said minimum value as said estimate of said altitude coordinate.

45. (Previously Presented) The method of claim 41, comprising the steps of:

identifying, in said cellular communications system, a plurality of base stations adjacent to said mobile terminal, each said adjacent base station having a respective altitude coordinate;

determining an average value for said respective altitude coordinates over said adjacent base stations; and

using said average value as said estimate of said altitude coordinate.

46. (Previously Presented) The method of claim 45, comprising the steps of:

performing power measurements providing, for each said adjacent base station, a respective power value for said mobile terminal; and

determining said average value as a weighted average of said respective altitude coordinates values, the weighting being a function of said power values determined for each said adjacent base station.

47. (Previously Presented) The method of claim 41, wherein said positioning coordinates are determined in an iterative manner by subsequent location steps, a new refined estimate of said altitude coordinate being used at each step in said iterative process.

48. (Previously Presented) The method of claim 41, comprising the steps of:

providing an approximate bi-dimensional positioning of said terminal on the basis of said information related to said cellular communications system; and

determining said positioning coordinates of said mobile terminal on the basis of said satellite signals by exploiting said bi-dimensional positioning and said estimate of said altitude coordinate.

49. (Previously Presented) The method of claim 48, wherein said determining step comprises:

initially determining a search area for positioning coordinates of said mobile terminal based on said satellite signals and said estimate of said altitude coordinate; and

subsequently identifying said positioning coordinates within said search area based on information related to said cellular communications system.

50. (Previously Presented) The method of claim 49, comprising the steps of:

defining the search area for said positioning coordinates in the form of a hyperbolic set of points; and

determining said positioning coordinates within said hyperbolic set of points by using said information related to said cellular communications system.

51. (Currently Amended) The method of claim ~~42~~ 41, comprising the steps of:

determining a first set of values for said location coordinates on the basis of said information related to said cellular communications system;

acquiring said satellite signals from said satellite-based system and deriving therefrom an area likely to include the mobile terminal;

providing a new set of values of said location coordinates by:

i) effecting, based on said information related to said cellular communications system, a bi-dimensional positioning of said mobile terminal within said area likely to include the mobile terminal; and

ii) accessing ~~said~~ a geographical data base and associating to the bi-dimensional positioning coordinates of said mobile terminal within said area a corresponding value for said altitude coordinate.

52. (Previously Presented) The method of claim 51, comprising the steps of:

determining the distance between said new set of values of said location coordinates and said first set of values for said location coordinates; and

comparing said distance with a threshold indicative of the degree of accuracy pursued in the location action; and

if said distance is higher than said threshold, starting an iterative process wherein said area likely to include the mobile terminal is re-defined on the basis of said satellite signals from said satellite-based system and the latest value available for said altitude coordinate and said steps of affecting said bi-dimensional positioning, accessing said geographical data base and associating to the bi-dimensional positioning coordinates of said mobile terminal within said area a corresponding value for said altitude coordinate are repeated, wherein said steps of bi-dimensional positioning are effected over said re-defined area.

53. (Previously Presented) The method of claim 52, wherein said iterative process comprises the steps of:

determining the distance between the sets of values of said location coordinates as available before and after the current iteration step; and

comparing said distance with a threshold indicative of the degree of accuracy pursued in the location action; and

if said distance is higher than said threshold, running a further iteration step wherein said area likely to include the mobile terminal is further re-defined on the basis of said satellite signals from said satellite-based system and the latest value available for said altitude coordinate and said steps of effecting said bi-dimensional positioning, accessing said geographical data base and associating to the bi-dimensional positioning coordinates of said mobile terminal within said area a corresponding value for said altitude coordinate and are further repeated, wherein said step of bi-dimensional positioning is effected over said further re-defined area.

54. (Previously Presented) The method of claim 41, comprising the step of determining at least approximately said coordinates based on satellite signals received from less than three satellites of said satellite-based system.

55. (Currently Amended) An ~~arrangement~~ apparatus comprising:

~~a satellite-based positioning system;~~

~~a cellular communications system;~~

~~at least one mobile terminal~~

a first receiver adapted to receive ~~in a given area~~ satellite signals ~~from said~~ transmitted in a satellite-based system; ~~and to be covered by~~

a second receiver adapted to receive signals transmitted in at least one cell of ~~said~~ a cellular communications system; and

at least one processing module configured for determining at least approximately the coordinates ~~comprising an altitude coordinate, of said~~ of a mobile terminal based on both satellite signals received from said satellite-based system and information related to said cellular communications system, wherein said coordinates include an altitude coordinate and said at least one processing module being configured for deriving an estimate of said altitude coordinate from ~~said~~ information related to an altitude of one or more network elements in said cellular communications system.

56. (Currently Amended) The apparatus ~~arrangement~~ of claim 55, comprising a geographical data base including data base items associated with a given set of bi-dimensional positioning coordinates of said mobile terminal in said area and corresponding values for said altitude coordinate, said at least one processing module being configured for accessing said geographical data base whereby said positioning coordinates as at least approximately determined based on said satellite signals are refined via the information derived from said geographical data base.

57. (Currently Amended) The apparatus ~~arrangement~~ of claim 55, wherein:

said cellular communications system comprises at least one base station proximate to said mobile terminal, said proximate base station having an associated altitude coordinate; and

said at least one module is configured for using the altitude coordinate of said proximate base station as said estimate of said altitude coordinate.

58. (Currently Amended) The apparatus ~~arrangement~~ of claim 55, wherein:

said cellular communications system comprises a plurality of base stations adjacent to said mobile terminal, each said adjacent base station having a respective altitude coordinate; and

said at least one module is configured for using as said estimate of said altitude coordinate one of the minimum of said altitude coordinates for said adjacent base stations and an average value for said respective altitude coordinates over said adjacent base stations.

59. (Currently Amended) The apparatus ~~arrangement~~ of claim 58, wherein said at least one module is configured for performing power measurements providing, for each said adjacent base station, a respective power value for said mobile terminal, and determining said average value as a weighted average of said respective altitude coordinates values, the weighting being a function of said power values determined for each said adjacent base station.

60. (Currently Amended) The apparatus ~~arrangement~~ of claim 55, comprising at least one module configured for determining said positioning coordinates in an iterative process by subsequent location steps, a new refined estimate of said altitude coordinate being used at each step in said iterative process.

61. (Currently Amended) The apparatus ~~arrangement~~ of claim 55, comprising at least one module configured for:

providing an approximate bi-dimensional positioning of said terminal on the basis of said information related to said cellular communications system; and

determining said positioning coordinates of said mobile terminal on the basis of said satellite signals by exploiting said bi-dimensional positioning and said estimate of said altitude coordinate.

62. (Currently Amended) The apparatus ~~arrangement~~ of claim 61, comprising at least one module configured for:

initially determining a search area for positioning coordinates of said mobile terminal based on said satellite signals and said estimate of said altitude coordinate; and

subsequently identifying said positioning coordinates within said search area based on information related to said cellular communications system.

63. (Currently Amended) The apparatus ~~arrangement~~ of claim 62, comprising at least one module configured for:

defining the search area for said positioning coordinates in the form of a hyperbolic set of points; and

determining said positioning coordinates within said hyperbolic set of points by using said information related to said cellular communications system.

64. (Currently Amended) The apparatus ~~arrangement~~ of claim 56, comprising at least one module configured for:

determining a first set of values for said location coordinates on the basis of said information related to said cellular communications system;

acquiring said satellite signals from said satellite-based system and deriving therefrom an area likely to include the mobile terminal; and

providing a new set of values of said location coordinates by:

i) effecting, based on said information related to said cellular communications system, a bi-dimensional positioning of said mobile terminal within said area likely to include the mobile terminal; and

ii) accessing said geographical data base and associating to the bi-dimensional positioning coordinates of said mobile terminal within said area a corresponding value for said altitude coordinate.

65. (Currently Amended) The apparatus ~~arrangement~~ of claim 64, comprising at least one module configured for:

determining the distance between said new set of values of said location coordinates and said first set of values for said location coordinates; and

comparing said distance with a threshold indicative of the degree of accuracy pursued in the location action; and

if said distance is higher than said threshold, starting an iterative process wherein said area likely to include the mobile terminal is re-defined on the basis of said satellite signals from said satellite-based system and the latest value available for said altitude

coordinate and said steps of effecting said bi-dimensional positioning, accessing said geographical data base and associating to the bi-dimensional positioning coordinates of said mobile terminal within said area a corresponding value for said altitude coordinate and are repeated, wherein said steps of bi-dimensional positioning is effected over said re-defined area.

66. (Currently Amended) The apparatus ~~arrangement~~ of claim 65, comprising at least one module configured for running said iterative process by:

determining the distance between the sets of values of said location coordinates as available before and after the current iteration step; and

comparing said distance with a threshold indicative of the degree of accuracy pursued in the location action; and

if said distance is higher than said threshold, running a further iteration step wherein said area likely to include the mobile terminal is further re-defined on the basis of said satellite signals from said satellite-based system and the latest value available for said altitude coordinate and said steps of effecting said bi-dimensional positioning, accessing said geographical data base and associating to the bi-dimensional positioning coordinates of said mobile terminal within said area a corresponding value for said altitude coordinate are further repeated, wherein said step of bi-dimensional positioning is effected over said further re-defined area.

67-78. (Canceled)

79. (Currently Amended) A computer-readable medium comprising instructions for execution by a processor, the instructions ~~program product~~ adapted to be directly loadable in the memory of at least one computer and including software code portions for performing a method of determining the location of a mobile terminal in a given area, said mobile terminal adapted to receive satellite signals from a satellite-based system and to be covered by at least one cell of a cellular communications system, the method comprising the steps of:

determining at least approximately the coordinates of said mobile terminal based on both satellite signals received from said satellite-based system and information related to said cellular communications system, wherein said coordinates include an altitude coordinate; and

deriving an estimate of said altitude coordinate from information related to an altitude of one or more network elements in said cellular communications system.

~~the method of any one of claims 41 to 54.~~

80. (Canceled)

Please add the following new claims 81-82:

81. (New) A method of determining the location of a mobile terminal in a given area, the method comprising the steps of:

including said mobile terminal both in a satellite-based positioning system and in a cellular communications system, whereby said mobile terminal is adapted to receive

satellite signals from said satellite-based system and to be covered by at least one cell of said cellular communications system; and

determining at least approximately the coordinates of said mobile terminal based on both satellite signals received from said satellite-based system and information related to said cellular communications system, wherein said coordinates include an altitude coordinate;

determining whether a geographical data base associating bi-dimensional positioning coordinates with corresponding altitude coordinates is available; and

deriving, in response to determining that the geographical data base is not available, an estimate of said altitude coordinate from information related to an altitude of one or more network elements in said cellular communications system.

82. (New) The method of claim 81, further comprising the steps of:

providing a geographical data base comprising data base items associated with a given set of bi-dimensional positioning coordinates of said mobile terminal in said area and corresponding values for said altitude coordinate; and

accessing said geographical data base via said mobile terminal whereby said positioning coordinates, as at least approximately determined by said mobile terminal based on said satellite signals, are refined via the information derived from said geographical data base.